

# Quick Start Guide

## ELinx EIR-G-SFP-T 10/100/1000Base-TX to Gigabit SFP Media Converter



### 1

## Items Included

- Gigabit Media Converter
- This Quick Start Guide

Note: Required but not included. Power supply, 12 – 48 VDC 10.6 watts. A gigabit 1000Base-SX/LX SFP module.

### 2

## Hardware Installation

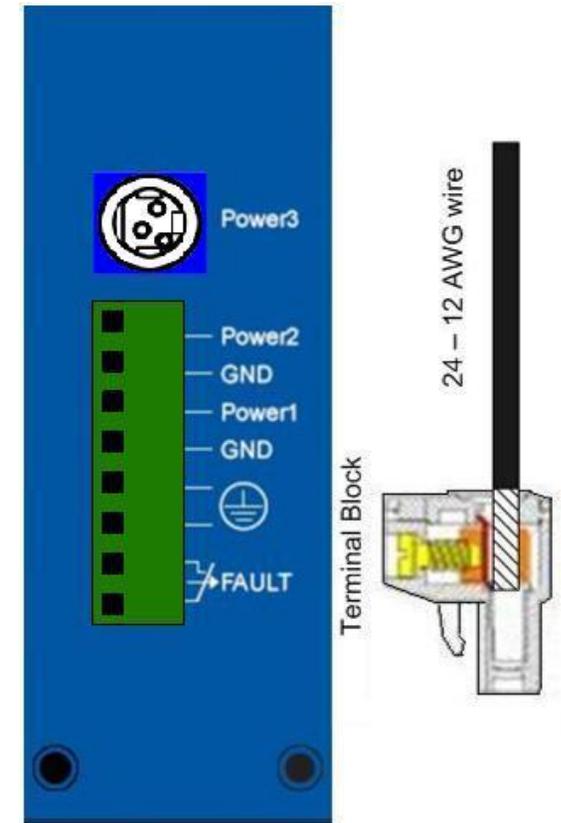
1. This is a DIN rail mountable hardened media converter and can be located in environments with temperatures ranging from -40 to 75° C. The relative humidity should be less than 95%, non-condensing.
2. Mount the converter on standard DIN rail by hooking the top rear of the media converter onto the top edge

of the DIN rail. Using a small flat head screwdriver, pull down on the spring-loaded tab on the bottom of the unit and push the unit back against the rail. Release the spring-loaded tab locking the media converter to the bottom edge of the DIN rail. Reverse these steps to remove. Also, can be panel mounted with **optional** kit (EIRPMKT).

3. Insert 1000Base-SX/LX module into SFP socket. Accepts 1000Base multi-mode or single-mode fiber SFP modules.
4. Insert RJ-45 Ethernet line into 1000Base-T port first and then connect the fiber port. The copper port auto negotiates speed and supports auto MDI/MDIX for uplink purposes.
5. Provide DC power to the unit between 12 – 48 volts. While only one power source is required to power up the media converter, using two sources provides redundancy for mission critical applications. The removable terminal block accepts 12 – 24 AWG wire. Be sure polarity matches diagram next to the terminal block. Terminals labeled Power are positive while GND is negative.
6. The terminal labeled Fault is connected to a dry contact and is rated 1 amp at 24VDC. The dry contact is normally closed when power is connected to both Power1 and Power2. When power fails on either Power1 or Power2 the contact will open signaling power failure. Power3 has no effect.
7. Power3 is available for use with **optional** 12VDC AC to DC power adapter (PS12VDC3P).

Power3	12VDC	DC Jack
Power2	+ 12-48VDC	Terminal Block
	- Power Ground	
Power1	+ 12-48VDC	
	- Power Ground	
⊕	Earth Ground	

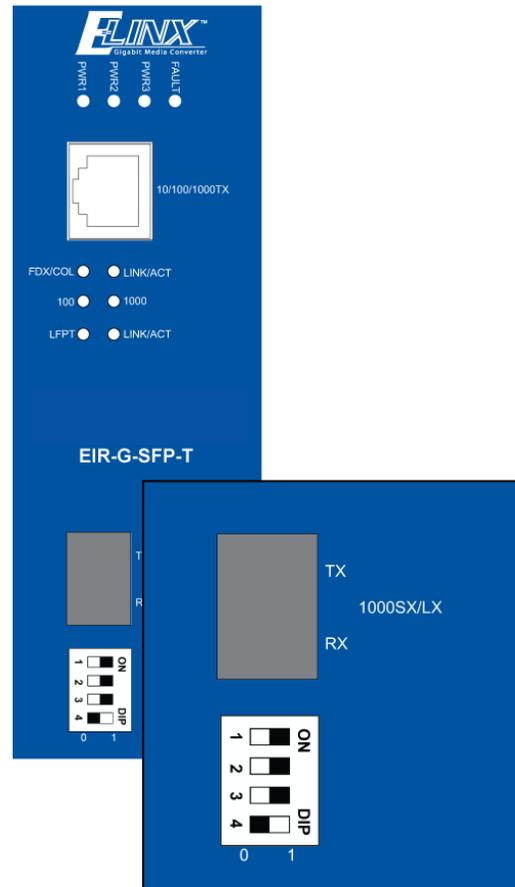
FAULT	1. The relay contact opens if Power1 or Power2 fail. 2. The relay contact closes when Power1 and Power2 are both on.
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## LED Chart

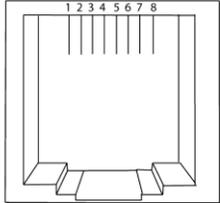
LEDs	State	Indication
FAULT	Steady	Power1, Power2, or ports fail
	Off	Power and ports functioning normally
Power1 Power2 Power3	Steady	Power on
	Off	Power off
LFPT	Steady	LFPT function enabled
	Off	LFPT function disabled
<b>1000Base-SX/LX</b>		
LINK/ACT	Steady	A valid network connection established for SFP port
	Flashing	Transmitting or receiving data ACT stands for Activity
	Off	No valid network connection established for SFP port
<b>10/100/1000Base-TX</b>		
LINK/ACT	Steady	A valid network connection established for copper port
	Flashing	Transmitting or receiving data ACT stands for Activity
	Off	No valid network connection established for copper port
FDX/COL	Steady	Connected in full duplex mode
	Flashing	Collision occurred COL stands for Collision
	Off	Connected in half duplex mode
1000	Steady	Connected at 1000Mbps
	Off	Not connected at 1000Mbps
100	Steady	Connected at 100Mbps
	Off	Connected at 10Mbps (100 & 1000 both Off)

## Ports



The copper port is 10/100/1000Base-TX and will auto negotiate a connection starting at gigabit speed. High quality Category 5e cable or better should be used. 1000BASE-T requires all four pairs to be present and is far less tolerant of poorly installed wiring than 100BASE-TX systems. A 1000Base-SX/LX SFP module socket for Gigabit optic expansion is located above DIP switch.

Pin	Label
1	TP0+
2	TP0-
3	TP1+
4	TP2+
5	TP2-
6	TP1-
7	TP3+
8	TP3-



## DIP Switch Settings

This device is plug\_and\_play; however, the following DIP switch selections are available. There are four pins on the DIP switch for port settings as shown in the table below.

DIP Switch No.	0 (OFF)	1 (ON)
1	Disable LFPT (default)	Enable LFPT
2	Disable link down alarm for copper port (default)	Enable link down alarm for copper port
3	Disable link down alarm for SFP socket port (default)	Enable link down alarm for SFP socket port
	Force Full Duplex mode for SFP socket port	Enable Duplex auto-negotiation for SFP socket port (default)

**Link-Fault-Pass-Through (DIP Switch 1)**

The default setting is link-fault-pass-through OFF. If not enabled and one side of the link fails, the other side continues transmitting packets, and waits for a response that never comes. When ON, LFPT will force the link to shut down as soon as it notices that the other link has failed. This gives the application software a chance to react to the situation.

**Link Down Alarm (DIP Switch 2 & 3)** By default, the link down alarms are disabled for both copper and fiber.

**Duplex Mode (DIP Switch 4)** The default setting is auto-negotiation ON. You may force full duplex mode when set in OFF position.